

Amendment of the Specification

On page 3, please add the following new paragraphs after line 18:

Fig. 12 is a flow diagram of a first method of the present invention.

Fig. 13 is a flow diagram of a second method of the present invention.

Fig. 14 is a flow diagram of a third method of the present invention.

Fig. 15 is a flow diagram of a fourth method of the present invention.

Fig. 16 is a flow diagram of a fifth method of the present invention.

On page 5, please replace the paragraphs commencing at line 15 with the following paragraphs:

In one embodiment, illustrated in Fig. 12, the process involves stimulating frequencies of from 15 to 20 Hz (beta frequencies) in the left hemisphere of the brain while simultaneously stimulating frequencies in the range of from 12 to 15 Hz (low beta frequencies) in the right hemisphere for a period of time. This step is followed by stimulating both hemispheres of the brain at frequencies of from 8 to 12Hz (alpha frequencies) for a second period of time. The first period of time can be approximately similar to or different from the second period of time. The steps can be repeated for up to 6 cycles to complete a session. Preferably, the first and the second periods of time range between 2 and 10 minutes. This method can be used on a hyperactive child by using fairly sudden shifts of about 30 seconds between the beta/low beta and alpha frequencies. Sudden shifts enhance dissociation of the child and help to keep the child engaged in the session and prevent distraction. Alternately, slow shifts done in 0.1 Hz increments over a few minutes or more between beta/low-beta frequencies and alpha frequencies can be used for senior citizens who may feel uncomfortable or nauseas if subjected to a “sudden shift” or rapid transition approach.

In another embodiment, illustrated in Fig. 13, the process involves providing stimulation at approximately twice the frequency of an aberrant brain wave frequency as a method to suppress the aberrant frequency. For example, people suffering from seasonal affective disorder (SAD) generally produce long streams of 10 Hz alpha frequency waves, associated with mental fog, depression, lethargy and carbohydrate cravings. By stimulating the brain at a frequency of 20 Hz, these symptoms can be alleviated. In a further example, people suffering from fibromyalgia syndrome (FMS), in which the symptoms include

musculoskeletal pain and fatigue, often exhibit excessive brain wave activity at frequencies of from 7 to 9 Hz. In this case, stimulating the brain at a frequency of from 14 to 18 Hz, can suppress the lower brain wave frequencies and help alleviate their symptoms.

On page 6, please replace the paragraph commencing at line 8 with the following paragraph:

Various embodiments of the present invention can also be used in relieving depression and depression related symptoms. In this case, as illustrated in Fig. 15, the process involves stimulating alpha frequencies in a range of from 8 to 12 Hz in the right hemisphere and beta frequencies in a range of from 15 to 20 Hz in the left hemisphere of the brain.

On page 7, please replace the paragraph commencing at line 11 with the following paragraph:

In a further embodiment, illustrated in Fig. 14, a process of stimulating the two hemispheres of the brain with two dissimilar frequencies is performed, as described above, wherein the two frequencies are within, for example, 0.1 and 3 Hz of each other. The use of two close yet different frequencies, hereinafter referred to as dissociation frequencies, has the effect of dissociating the subject from awareness of body and mind. This dissociation is similar to that experienced during, for example, hypnosis or meditation. The process is found to be particularly useful in reducing symptoms of anxiety, panic or depression. Applying dissociation frequencies to the hemispheres of the brain functions to block fearful, worrying or destructive thoughts and relax and stabilize the subject. This process is also effective for improving sleep as it reduces mental chatter, caused by anxiety and daily events that interfere with sleep.

On page 8, please replace the paragraph commencing at line 25 with the following paragraph:

Embodiments of the present invention also provide a method to pace the breathing of a subject suffering from anxiety, panic, depression or post traumatic stress disorder, so that the subject is breathing at roughly 5 to 7 breathe cycles per minute. This process, illustrated

in Fig. 16, can utilize synthesized heartbeat sounds or other auditory cues to regulate or pace breathing, simultaneously with various stimulation frequencies or combinations thereof to relax the subject. The auditory cues may be provided at 2 times or 4 times the breathing rate. A cue at 2 times the breathing rate would provide one prompt for inhale and one prompt for exhale. In this case, twelve prompts could be used to achieve a breathing rate of six